long-term macrolide use, to allow us to target these drugs more effectively in terms of risks and benefit. What risks might be posed both for individual patients and for society by the effects of macrolides on microbial selection is unclear, especially when they are used for more prevalent disorders such as COPD. We must remember the dictum to first do no harm, and proceed with caution.

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Can the internet help economically disadvantaged smokers?

Smoking is a major contributor to health inequalities between different social groups in many countries.[1] For example, smoking is responsible for roughly half the total number of deaths in economically disadvantaged men aged 35–69 years in the US and the UK.[2] However, little evidence exists for strategies to reduce smoking-related health disparities.[3] Mainstream smoking cessation strategies are consistently reported to have poorer effectiveness in economically disadvantaged smokers than in affluent smokers.[3] Furthermore, internet-based cessation strategies have additional concerns regarding effectiveness in smokers with poor educational attainment because these individuals are less likely to engage with web-based programs than are those with high attainment. In *The Lancet Respiratory Medicine*, Jamie Brown and colleagues' randomised controlled trial[4] challenges the prevailing position on the value of smoking cessation as a pro-equity approach.

With an aim to assess the effectiveness of StopAdvisor—an interactive internet-based intervention in smokers of high and low socioeconomic status—4613 participants were randomly allocated to the StopAdvisor intervention or to an information-only website (control). The primary outcome was biochemically verified 6-month continuous smoking abstinence. Rates of overall continuous smoking abstinence were similar between participants in the StopAdvisor and control groups (237 [10%] of 2321 vs 220 [10%] of 2292 participants; relative risk [RR] 1·06, 95% CI 0·89–1·27; p=0·49). However, there were differences in the intervention effect across high and low socioeconomic status subsamples (RR 1·44, 95% CI 0·99–2·09; p=0·0562). Participants with low socioeconomic status achieved higher cessation rates with StopAdvisor than with the information-only website (90 [8%] of 1088 vs 64 [6%] of 1054 participants; RR 1·36, 95% CI 1·00–1·86; p=0·0499), but no difference was noted in those with high socioeconomic status (147 [12%] of 1233 *vs* 156 [13%] of 1238 participants; 0·95, 0·77–1·17; p=0·61). The investigators conclude that although StopAdvisor might not help affluent smokers, it is likely to benefit those who are economically disadvantaged.

The StopAdvisor intervention is based on behaviour-change theory and was developed iteratively after being piloted in economically disadvantaged smokers. Most trial participants had no previous exposure to behavioural support, confirming the investigators' assumption that internet-based cessation is likely to reach treatment-naive smokers. Participant characteristics were balanced across the two groups and


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sample size was sufficient to assess effectiveness in both socioeconomic status subgroups. However, trial participants were recruited directly from the internet in a high-income country, hence the cohort included only economically disadvantaged smokers who had access to internet. Findings cannot be extrapolated to countries where access and internet literacy might differ from that in the UK. Although the StopAdvisor intervention seems to benefit smokers of low socioeconomic status, their quit rates in the intervention group remained lower compared with those noted in either intervention or control group in the high socioeconomic status subgroup. This finding is not unexpected, but a stark reminder of the challenges faced by economically disadvantaged smokers in quitting.

Findings from the StopAdvisor trial are consistent with a Cochrane review of internet-based cessation.[5] However, none of the 28 studies included in that review reported any subgroup analyses based on socioeconomic status. The overall low effectiveness of StopAdvisor is consistent with studies that compared internet-based cessation with active controls (ie, more intensive than self-help or usual care). On the other hand, the effect in economically disadvantaged smokers in the StopAdvisor trial, is consistent with studies that included tailoring and interactivity in their interventions and that made comparisons with inactive controls (self-help and usual care). At best, an internet-based intervention such as StopAdvisor might achieve better cessation rates than usual care or self-help,[6] similar to rates with face-to-face or telephone-based behavioural support,[7] but inferior to those achieved by combining drugs with behavioural support.[8]

Despite their modest effect, internet-based approaches have a distinct appeal because of their low cost and potential to be used by smokers who would otherwise have no access to behavioural support or drugs. About 95% of smokers in low-income and middle-income countries fall in the above category. Even in high-income countries, such as the USA, only a third of smokers report use of behavioural support or drugs to help quit, possibly because of restricted access.[9] Digital divide—ie, inequality in access and use of internet-like technologies between different social strata—could be a barrier to use of such approaches.[10] However, internet access and literacy is likely to improve as the internet becomes increasingly recognised as a way to improve economic opportunities and reduce inequalities. Further research is needed to assess the uptake and long-term effectiveness of internet-based cessation in not only economically disadvantaged groups, but also in those who are marginalised for other reasons.

Tailor-made internet-based interventions with an interactive component might benefit economically disadvantaged smokers who have access to internet and are computer literate. More studies are needed to confirm this assertion in different contexts. The effect of such interventions is likely to be marginal compared with face-to-face support and drugs offered by cessation advisors. However, considering their relatively low-cost, internet-based approaches are appealing, especially if access to internet and computer literacy widens to cover all sections of society.

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